



6. Inventory your house and dispose of old or unwanted household hazardous materials properly for a healthier home and environment.

- Because vapors can leak even from closed containers, when you avoid storing HHMs you improve indoor air quality by reducing any fumes, and may prevent accidental spills and poisonings of children and pets.

- Look under your sinks, on shelves in the basement or garage, and other places you store household hazardous materials. If you don't use the material regularly, call your RCC for an appointment for proper disposal.



Tips from Kaya

A healthy lawn is a medium green color; a dark green turf is a sign of an over-fertilized lawn, which is prone to disease and drought damage.



For more information contact your
local Solid Waste Agency
or your Regional Collection Center.
www.SafeSmartSolutions.org



**Change Our Ways.
Change Our World.**



**SIX EASY
ACTIONS**



1. Buy environmentally friendly products to improve health, safety and reduce your impact on the environment.

- Choose products with natural ingredients such as coconut or lemon oil. Using less toxic nature based household products can help keep your home healthier.



2. Purchase only what you need, to prevent storing leftovers.

- Avoid “super” sizes and bundled products. The money you save may not be worth the risk of storing unused hazardous products. Storing more than you need may lead to a greater risk of exposure to spills and fumes or accidental poisonings.
- Paint is one of the most common household hazardous waste streams. Use a paint calculator online before you buy, to determine how much paint you will actually need.

3. Protect your Indoor Air Quality for a healthy family and home.

- Purchase household products with no or low Volatile Organic Compounds (VOCs). Paints and finishes are among the leading causes of indoor air pollution because they release VOCs during application and for years afterwards. VOC's create the “new paint smell” that many of us are familiar with and inhaling them may cause eye, nose and throat irritation, headaches, dizziness, nausea and vomiting. VOC's are also commonly found in adhesives, aerosol sprays; cleansers and disinfectants; air fresheners; automotive products and even hobby supplies.



- Buy unscented gel, solid or pump spray products, which are generally better for you and indoor air quality. Scented products can add chemicals to the indoor air environment and aerosol sprays cause air pollution by releasing particles and gases into the air which may cause breathing difficulties especially for people with respiratory ailments.

4. Replace your mercury thermometers and thermostats with digital models.

- Replacing your mercury thermostat with a programmable one will save you money on heating and cooling costs by letting you take charge of your house's heating and cooling.
- Take mercury-containing items to your local Regional Collection Center (RCC). Even a few drops of mercury from a broken thermometer or thermostat can raise mercury air concentrations in a room to unsafe levels by releasing mercury vapors.



5. Lawn Care --Try going natural for a better environment.

- Rainwater can wash insecticides and herbicides from our lawns into the storm sewers, which drain into our streams or lakes. These waters are used as a source for both drinking and recreation.
- If you decide to use a petroleum-based insecticide or herbicide, follow all label instructions for use, storage and disposal. Do not apply before a rainstorm and do not over-apply.
- Lawn care products can be tracked into the house. Remove your shoes at the door.

How hazardous is the product?

The easiest way to determine if a product is considered hazardous is to read the label, looking for such signal words such as Danger, Caution, Warning and Toxic.

What do I do if I have an accident?

The label should provide steps to take if the product contacts skin, or is inhaled or swallowed. Does the label give you enough information to prepare for and respond to these accidents?

Proper Disposal for Cleaners

Use the product up and discard the container as the label instructs or take leftover cleaners to your local Regional Collection Center (RCC) for proper disposal. Call your local Solid Waste Agency or visit www.SafeSmartSolutions.org for more information.



Tips from Kaya

Keep the Iowa Poison Control Center hotline number
1-800-222-1222

within easy reach should you ever need it. The Iowa Poison Control Center reported that the # 1 cause of accidental poisonings in children are household hazardous products.



<http://www.epa.gov/opp00001/label/>



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CLEANERS

PROPER MANAGEMENT
AND DISPOSAL



Cleaning products make our chores easier but some require special care during use, storage and disposal. Cleaning products, which are Household Hazardous Materials (HHMs) can pollute the environment if used or disposed of improperly. The cleaners in your home often have the same chemicals found in industrial products, just lower concentrations.

Cleaners may contain hazardous chemicals that can cause health concerns such as skin irritations, aggravation of respiratory diseases, and cancer. Health effects caused by hazardous waste can be acute (sudden or immediate onset of severe symptoms) or chronic (gradual onset of symptoms occurring through repeated exposures over an extended period of time).

Children, seniors and pets can be particularly sensitive to household chemicals. Repeated exposures during use and storage of HHMs can have negative impacts on health and safety.



Changing the way we purchase household cleaners can change our world.

In response to customer demand and environmental responsibility many companies are now producing cleaners with natural ingredients such as coconut or lemon oil. Using less toxic or nature-based household products can help keep your home healthier, safer and helps protect the environment. Instead of having specialized cleaners for every room of your house, consider purchasing fewer products and use each one for several areas.



One simple guideline to follow when purchasing household hazardous materials is:

Read the Label. The most important time to read the label is **before** you buy a product. The label must tell you what the product is for, how to use it, the risks you are exposed to, and what to do if there is an accident. Product labels are required to have certain words called “**Signal Words**” to alert the consumer if a product is considered hazardous.



Products without the **signal words**, such as natural or plant-based cleaners, are generally considered to be greener alternatives. Examples of signal words are:

Danger · Poison · Caution · Warning

To learn more about these signal words visit **SafeSmartSolutions.org**



Source: US EPA. Go to <http://www.epa.gov/opp00001/label>

As you read product labels, ask yourself the following questions:

What is this product for?

Does it do just one job, or can I use it for several tasks? Will something else I already have do the job? Are there any restrictions, such as “avoid using product around plastic, metal, or fabric” or “use with ventilation, gloves or eye protection”?

How do I use it?

Is the product ready-to-use, or do I mix it with water? How can I mix the product safely? How much will I need to do the job?



Safe Smart Solutions for Batteries

The Call2Recycle network

- Recycles button, sealed lead acid, NiCd, or Li-Ion batteries at no charge to residents or businesses. Visit www.Call2Recycle.org to find your nearest participating collection location.

Iowa Regional Collection Centers (RCCs)

- Recycle button, rechargeable, sealed lead acid or large lead acid batteries at no charge for residents and a small fee for businesses who are Conditionally Exempt Small Quantity Generators.

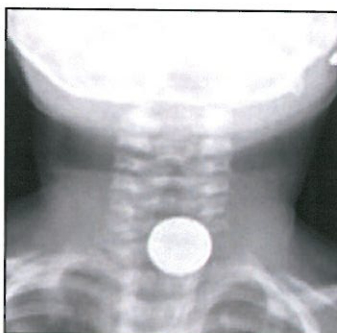
For more information contact your local Solid Waste Agency or your Regional Collection Center.

Visit www.SafeSmartSolutions.org to find out more and locate your local RCC



Tips from Kaya

Button batteries can be extremely hazardous to young children if swallowed and can cause permanent damage to your health.



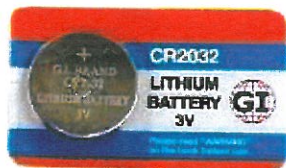
Button batteries are often overlooked by caregivers as they may not know the child has swallowed a battery and symptoms may mimic the flu. Store these batteries out of reach of children and recycle them.

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BATTERIES

PROPER MANAGEMENT AND DISPOSAL



Batteries come in a multitude of sizes, shapes, and chemistries, from the small Nickel Cadmium batteries used in your digital camera to the twenty-pound lead-acid battery in your car. Many of these batteries contain heavy metals such as lead and cadmium. Although safe when used properly, if batteries are disposed of improperly, exposure to heavy metals can be hazardous to human health and the environment.

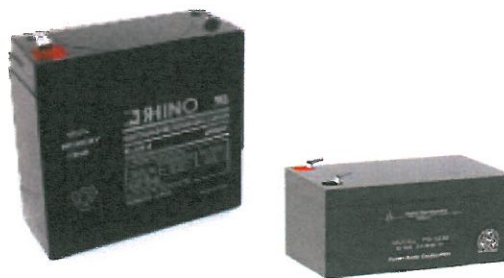
Battery Types

- **Alkaline batteries** are non-rechargeable batteries (e.g. AA, AAA, C and D) that are commonly used in flashlights, clocks and other applications. Although these batteries are no longer made with hazardous materials and can be disposed of in your trash, a better option economically and environmentally is to purchase rechargeable batteries.



- **Button batteries** are small, round and silver-colored and are most commonly found in watches, hearing aids, cameras, calculators, and other small electronic devices. Button batteries often contain mercury, silver or lithium.

- **Sealed Lead Acid Batteries (non-automotive)** may be used in such applications as uninterruptible power supply (UPS) battery backup (a device that keeps computers running for a short period of time after a power failure), remote control cars or home alarms.



- **Lead Acid Batteries (automotive):** are used in large equipment and machinery (e.g. cars, trucks, boats, motorcycles) and for stationary stand-by power. Section 455D.10 of the Code of Iowa prohibits land disposal of lead acid batteries. The law also requires that retailers accept your old lead acid battery at the point of sale, when you buy a new one.



- **Rechargeable Batteries** such as nickel-cadmium (NiCd) and Lithium Ion (Li-Ion) are the most common types of rechargeable batteries, used in cellular phones, small electronic equipment and toys. Rechargeable batteries are hazardous to your health and the environment as they contain heavy metals like cadmium. Recycling these batteries when they no longer hold a charge is the best option.



A Few Tips:

- Remove the batteries before disposing of a product.
- Buy batteries only as you need them as they do have a limited shelf life.
- Don't mix old batteries with new ones or rechargeable ones with alkaline.

Where can I recycle my used Oil or Oil Filters?

Locations across the state accept used motor oil and oil filters for recycling. Automotive related businesses statewide may serve as a drop off locations for your used oil or oil filters or take them to your local Regional Collection Center (RCC).

For the location of your nearest RCC, visit www.SafeSmartSolutions.org.

For the location of some businesses that accept used oil or oil filters visit the Automotive Products Disposal Directory at www.iowadnr.gov/FABA



For more information contact your local Solid Waste Agency or your Regional Collection Center.

www.SafeSmartSolutions.org



Tips from Kaya

Used oil is recycled by being re-refined to remove contaminants and water. Oil displaying the API "Donut" or ILSAC "Starburst" meets the same certification as virgin motor oil and can be used in engines or as lubricating oil.



API "Donut"



ILSAC "Starburst"



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**USED OIL
AND
OIL FILTERS**



Used Oil

Oil doesn't wear out, it just gets dirty. As it lubricates your engine it picks up a variety of contaminants, causing the need for an oil change. If you change your own oil, please recycle at one of the locations listed on SafeSmartSolutions.org. Iowa law prohibits residents and businesses from disposing of used motor oil in the trash.

Environmental Impacts

When disposed of improperly, used oil can be hazardous to human health and the environment. **Never** pour used oil down any type of drain, into a sanitary sewer or onto the ground. One pint of oil can form a slick as big as a football field on a lake or pond.



What happens to used motor oil I bring in to recycle?

Used oil can be reprocessed into fuel that can be used in furnaces for heat, or in power plants to generate electricity for homes, schools and businesses. It can also be used in industrial and utility boilers or blended for marine fuels. Used motor oil can also be re-refined into lubricating oils that meet the same API specifications as virgin motor oil.



Used oil

Refined oil

If you recycle just 8 quarts (2 gallons) of used oil it can generate enough electricity to run the average household for almost 24 hours.



Used Oil Filters

Even after a filter has been drained for several hours according to federal guidelines, several ounces of oil may remain trapped in the filter. This oil may leach out and contaminate ground or surface waters. Recycling used oil filters is preferred. It is the law in Iowa that businesses must recycle all oil filters they generate.

What happens to the used oil filters I bring in to be recycled?

The filter is crushed, shredded or heated to remove the oil for recycling. The scrap metal is sent to smelters where it is used in steel products, which saves four times as much energy as virgin iron ore and conserves natural resources.



Proper Disposal

All Regional Collection Centers accept oil based paints and varnishes from households for disposal. It is illegal to dispose of oil based paint in the trash in Iowa. Latex paint is not considered hazardous waste but most RCCs will accept latex paint for a small disposal fee. You can also dispose of small amounts of latex paint safely at home by leaving the lid off the can and drying out the paint or mixing it with kitty litter. You can then place it in the garbage with the lid off.



Recycle / Reuse

If you have leftover paint in usable condition, check with neighbors, church groups or the local community to see if other residents can use it. If the paint is not contaminated or old and has not been frozen or otherwise improperly stored, many Regional Collection Centers (RCCs) operate swap shops where you may donate the paint for others to use. To locate your nearest RCC, go to www.SafeSmartSolutions.org.

Tips from Kaya

If you need to store paint, you can help prevent it from going bad by making sure the lid is on tightly and storing the can upside down. This creates an air-proof seal around the lid.



For more information contact your local Solid Waste Agency or your Regional Collection Center.
www.SafeSmartSolutions.org



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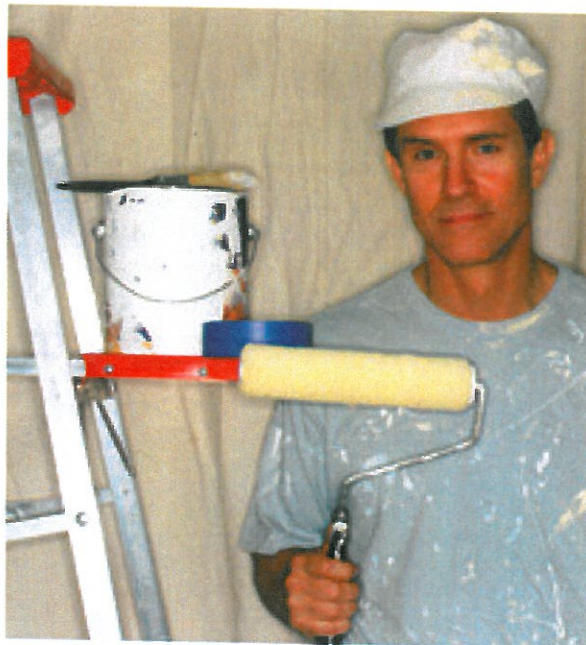
PAINT

PROPER MANAGEMENT
AND DISPOSAL

Paint is generally classified into two groups: **latex** (also called water-based) and **oil-based** (also called solvent-based). Latex paint uses water as the carrier for the pigments, while oil-based paint uses a solvent containing carbon-based Volatile Organic Compounds, or VOCs. Some oil paints may also contain chemicals and metals that can damage the environment and human health if not disposed of properly. When an oil-based paint is required for a job, ask your paint retailer for tips about purchase and use.



Paints and finishes are among the leading causes of indoor air pollution because they release VOCs during application and for years afterwards. VOC's create the "new paint smell" that many of us are familiar with and inhaling them may cause headaches, dizziness, nausea or vomiting. Because latex paints do not use solvents they emit far fewer VOCs and do not require the use of turpentine to clean brushes and equipment, and avoid the use of additional hazardous materials.



How much paint to buy?

When purchasing paint, remember to buy only the amount you need for the job so you won't have to store leftover paint. Before you buy your paint, you should first determine how much paint you will need.



How much paint would be needed for a 10 ft by 15 ft room with an 8 ft ceiling, one 21- square-ft doorway and two 15- square- ft windows?

- 1) Measure the total distance (perimeter) of the room:
 $10\text{ ft} + 15\text{ ft} + 10\text{ ft} + 15\text{ ft} = 50\text{ ft perimeter}$
- 2) Multiply the perimeter by the ceiling height to find the total wall area in square ft:
 $50\text{-ft perimeter} \times 8\text{-ft ceiling} = 400\text{ square ft total wall area}$
- 3) Subtract the square ft of the door and the windows from the total wall area:
 $400\text{ square ft wall area} - 21\text{ square ft door} - 30\text{ square ft window area} = 349\text{ square ft.}$

Total paint needed = 349 square ft.

Retailers and information on the paint cans can help you to determine the amount of paint you will need to purchase.